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09/431,581	11/01/1999	HENDRIKUS J. GRUTTER	PHN-17159	8896

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US PHILIPS CORPORATION  
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EXAMINER

HA, YVONNE QUY M

ART UNIT

PAPER NUMBER

2697

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/431,581

Applicant(s)

GRUTTER, HENDRIKUS J.

Examiner

Yvonne Q. Ha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11/1/99.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Oath/Declaration***

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: the inventor's signature is missing from the Oath/Declaration form.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Reference 22 in figure 1; References 58, 60, 62, and 64 in figure 3; References 76, 81, and 8 in figure 4. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3 and 12 stated the length of the variable length auxiliary signal can also assume the value of zero. It is unclear how the auxiliary signal length can be defined by "the value of zero".

*Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1, 2, 3, 8, 9, 10, 11, and, 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Tezuka, US Patent 6,331,989B1.

Referring to claims 1, 8, 9, 10, and, 11, the Tezuka reference disclosed a multiplexer (block 1 of figure 1) for transmitting a plurality of digital signals having different frame lengths and bit synchronized at the same signal rate (bits/sec) upon multiplexing the signals in a predetermined order, and a demultiplexer for demultiplexing a received multiplexed signal and detecting a predetermined sync pattern (ie, the claimed auxiliary signal), from each digital signal (col.2, lines 52-59; figures 1-3). The Tezuka reference also disclosed the four different types of signals for multiplexing and demultiplexing including variable length type signals (col. 3, lines 23-24).

Referring to claim 2, the Tezuka reference disclosed a plurality of signals having arbitrary frame lengths are multiplexing a predetermined order to be transmitted (col. 4, lines 53-57; figure 3).

Referring to claims 3 and 12, the Tezuka reference disclosed the multiplexing and demultiplexing circuits perform bit multiplexing and bit demultiplexing of signals (col.5, lines 4-7).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tezuka US Patent 6,331,989 in view of Itoh et al., U.S. Patent 4,860,282 and further in view of Kurobe et al., US Patent 6,233,251B1.

Referring to claim 5, the Tezuka reference disclosed all the aspects of the claimed invention as set forth in the 102(e) rejection above, and further taught that the variable length data packet signal type is output in the order named in accordance with the signal phases. The Tezuka reference failed to disclose using the length field to extract the source signal. However, the Kurobe et al. reference disclosed the multiplex frame is a fixed length including a header and a fixed-length field (col. 4, lines 57-65 of Kurobe). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the length field in the multiplex frame of the Tezuka reference to carry the source signal across the transmission link

and to extract the signal from the frame at the demultiplexer, thereby accurately recovering the source information.

Referring to claims 6 and 7, the Tezuka reference disclosed all the aspects of the claimed invention as set forth in the 102(e) rejection above, and 103 (a) of claim 5, and further taught that the method of multiplexing and demultiplexing the variable length data packet signal type by performing the bit multiplexing and demultiplexing respectively. The Tezuka reference failed to disclose the length field definition with a first number of symbols. However, the Krobe et al. reference disclosed the multiplex frame includes a fixed length field with two variable-length slots. The length of the first variable-length slot is a predetermined fixed length when data to be stored exists and is zero with no data to be stored. The length of the second variable-length slot is increase or decreased depending on the first variable-length slot. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to define the comparison logic of 1 or greater than 1 between the first number of symbol and the second number of symbol because it is conventional in the length field with variable length.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tezuka US Patent 6,331,989 in view of Itoh et al., US Patent 4,860,282.

Referring to claim 4, the Tezuka reference disclosed the variable length data packet signal type is switched to predetermined output positions by a switch arranged on the subsequent stage of a demultiplexing circuit for outputting the signal in a fixed manner (col. 5, lines 23-27). The Tezuka reference failed to disclose the extraction of auxiliary signal. However, the Itoh et al. referenced disclosed the transmitted auxiliary signals used in multiplex communication system comprise of insertion first auxiliary signal into the main signal in a first one of the channels and

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second auxiliary signal into the main signal in third or fourth channels (col. 9, lines 3-9 of Itoh et al.). Therefore, it would have been obvious to a person of ordinary skill in the art to extract the auxiliary signal out of the main signal because it is conventional to extract the stuff auxiliary signal from the main signal frame synchronization signals.

### *Conclusion*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

- Tezuka US Patent 6,331,989B1 disclosed the multiplex transmission method and system.
- Kurobe et al. US Patent 6,233,251B1 disclosed the multiplex transmission method and system, the format of a multiplex frame.
- Itoh et al. US Patent 4,860,282 disclosed system for transmitting auxiliary signal in a multiplex communication system.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne Q. Ha whose telephone number is 703-305-8392. The examiner can normally be reached on Mon-Fri. 7:00 a.m.- 4:00p.m. Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on 703-305-4717. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-9508 for regular communications and 703-305-9508 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

YQH

October 16, 2002

  
RICKY NGO  
PRIMARY EXAMINER